IN THE CLAIMS

Please cancel Claims 1-12.

Claim 13 (New): A device for tuning a reflector component formed in a portion of an optical waveguide including first and second ends, the optical waveguide configured to propagate a light, the reflector component being capable of reflecting the light at a reflection wavelength, the device comprising:

means for compressing the optical waveguide portion and therefore the reflector component, to change a reflection wavelength; and

prevention means for preventing buckling of the optical waveguide portion when the optical waveguide portion is compressed,

wherein the prevention means comprises:

a tube with first and second ends, the tube being crossed by the optical waveguide portion, and

means for guiding the portion in the tube;

wherein the means for compressing comprises:

a curved deformable component, with first and second sides, first respective ends of the tube and the optical waveguide portion being attached to the first side, a second end of the tube being spaced apart from the second side and the second end of the optical waveguide portion being attached to the second side, and

a piezoelectric actuator, positioned in a space between the curved deformable component and the tube, and attached to the component and to the tube, the actuator configured to extend when energized and then deforming the component, the latter being then configured to compress the optical waveguide portion.

Claim 14 (New): The device according to claim 13, wherein the reflector component is a Bragg grating.

Claim 15 (New): The device according to claim 13, wherein the optical waveguide is an optical fiber.

Claim 16 (New): The device according to claim 13, wherein the compression means has an axis of symmetry that is formed by the axis of an optical waveguide portion.

Claim 17 (New): The device according to claim 13, wherein the guiding means comprises rings that extend one after the other in the tube, are spaced apart from one another by elastic components and/or elastic toric spacers, and crossed by the optical waveguide portion, the optical waveguide portion configured to freely slide in the rings.

Claim 18 (New): The device according to claim 17, wherein the elastic components are in honeycombed polytetrafluoroethylene.

Claim 19 (New): The device according to claim 13, wherein the guiding means comprises stiff washers placed one after the other in the tube, along the optical waveguide portion, and are crossed by the optical waveguide portion, and elastic components that extend one after the other in the tube, alternate with the stiff washers and are integral with the stiff washers.

Claim 20 (New): The device according to claim 19, wherein the elastic components form a single block of elastic material that confines the optical waveguide portion.

Claim 21 (New): The device according to claim 13, further comprising means for controlling the piezoelectric actuator in a closed loop configuration.

Claim 22 (New): The device according to claim 21, wherein the control means comprises measuring means comprising the Bragg grating or a variable capacitor with two plates that are integral with the tube and the deformable component, respectively.

Claim 23 (New): The device according to claim 13, further comprising means for blocking the deformable component.

Claim 24 (New): The device according to claim 23, wherein the means for blocking comprises a component that is made out of a shape memory alloy and configured to tighten the tube.